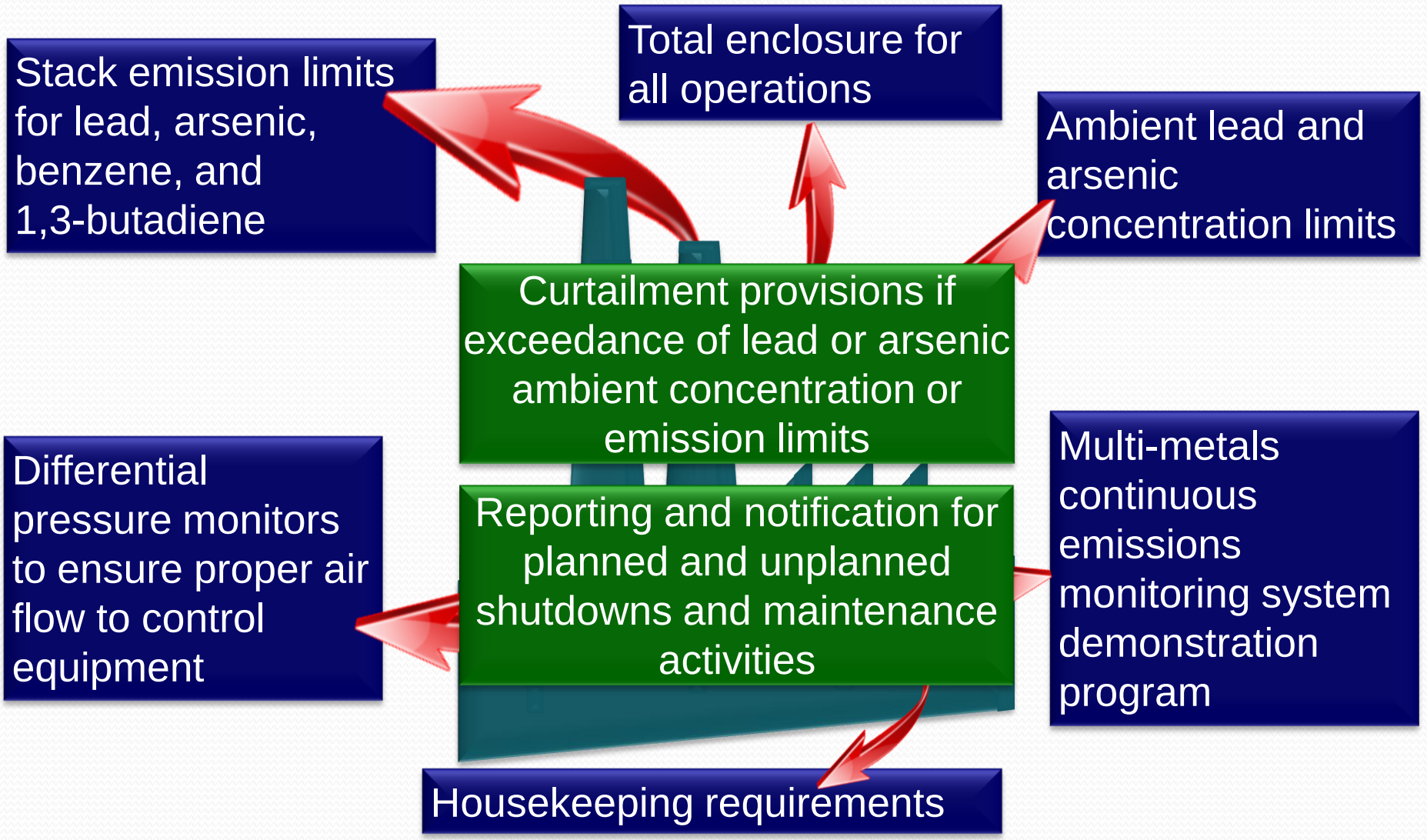
PAR 1420.1 Public Workshop

November 19, 2014

Rule 1420.1 Background

- Adopted November 5, 2010 and amended in January and March 2014
- Applies to large lead-acid battery recycling facilities
  - Exide Technologies, Vernon
  - Quemetco, Industry
- Ensures compliance with the Lead National Ambient Air Quality Standard of 0.15 µg/m^3 averaged over rolling 3-month period
- Addresses lead, arsenic, benzene, and 1,3-butadiene emissions

Rule 1420.1 Key Elements



Background for Proposed Amended Rule 1420.1

- On January 10, 2014, Governing Board staff directed staff to:
  - Begin rulemaking to consider lowering the lead point source emission rate; and
  - Possibly other revisions to reduce the further accumulation of lead dust to the surrounding communities
- Governing Board took into consideration December 2013 DTSC letters that
  - Revealed elevated lead levels in surface dust and soil samples at and around Exide

Ambient Lead Concentration Limit (d)(1) and (n)(1)(D)

- Reduced ambient lead concentration limit :
  - Prior to January 1, 2016: 0.150 µg/m^3
  - On and after January 1, 2016: 0.110 µg/m^3
- Same averaging period – any 30-consecutive days
- Operators required to report spikes >0.300 µg/m^3
- Compliance with ambient limit will require careful attention to all potential emission sources

Analysis of Ambient Lead Concentration

- Review of ambient lead concentrations from 2012 through 2013
  - Current ambient lead concentration limit effective Jan 2012
  - Excludes Exide ambient monitoring results after Sept 2013
    - Storm water repair work – substantial excavation
- Noticeable improvements from 2012 to 2013 data
  - Fewer spikes above 0.300 µg/m^3
  - Less days over proposed ambient concentration limit
  - Installation of additional air pollution control equipment in Exide in 2012

Feasibility of Achieving Ambient Lead Concentration of 0.110 ug/m^3

- Based on 2013 data[1], 0.110 µg/m^3 feasible for both facilities provided avoidance of daily spikes >0.300 µg/m^3
- Exide:
  - OSN monitor showed 9 days of exceedances of the 0.110 µg/m^3
  - Exceedances were in succession over 9 day time period
  - No exceedances of the 0.110 µg/m^3 threshold at other monitors
- Quemetco:
  - No exceedances of the 0.110 µg/m^3 threshold

[1] For Exide, did not include data after 9/16/3013. Storm water repair work which required substantial soil excavation.

Lead Emission Rate (f)(1)(A)

- Reduce total facility lead emission rate 50%:
  - Prior to January 1, 2016: 0.045 lb/hr
  - On and after January 1, 2016: 0.023 lb/hr
- Based on earlier source tests[1], Exide can meet 0.023 lb/hr
  - Arsenic controls expected to further reduce lead emissions
- Quemetco meets 0.023 lb/hr
- Not recommending 0.003 lb/hour

[1] Source tests used for 2012 HRA showed an overall emission rate <0.023 lb/hr

Lead Compliance Plan Submittal Thresholds PAR 1420.1 (g)(1)

Prior to July 1, 2015:

Submit compliance if ambient lead concentration exceeds 0.120 ug/m^3

On and After July 1, 2015:

Submit compliance plan if ambient lead concentration exceeds 0.110 ug/m^3

On and After January 1, 2016:

Meet an ambient lead concentration of 0.110 ug/m^3

Housekeeping Requirements (h)

- Added two additional housekeeping provisions
  - Lead or arsenic containing trash and debris must be kept in covered, leak-free containers
  - Post 5 MPH speed limit signs throughout plant

Maintenance Activities (d)(17) and (i)(1)

- Expanded definition of “Maintenance Activity” to include grading and soil disturbance activities
- Three additional requirements
  - Stop maintenance activities if instantaneous wind speed limits ≥ 20 mph
  - Perform cutting or drilling under 100% wet conditions
  - When grading, sufficiently wet soil to minimize fugitive dust

Ambient Air Sampling (j)

- Increased lead and arsenic sampling frequency:
  - Current requirement: Sample 1 in 3 days
  - Date of adoption: Sample daily
- Added provision to retain sample filters for one year
- Removed provision to trigger daily sampling if exceedance of ambient concentration limit – provision no longer needed

Monitor Failure Provisions (j)(2)(C)

- Added provision for ambient monitor malfunction
- Provision applies only if:
  - Monitor malfunction such as motor breaks, monitor fails, etc.; or
  - Occurrence beyond the control of the facility such as vandalism, catastrophic event, etc.
- "Monitor malfunction" does not include power failure since ambient monitors must have uninterruptible power supplies pursuant to (j)(7)

Monitor Failure Provisions (j)(2)(C) *(Continued)*

- If monitor failure, operator must:
  - Report with a notification made to 1-800-CUT-SMOG within 2 hours of knowing that sample was not collected
  - Allows for one missing day within a consecutive 30-day period, for each monitor

Source Tests (k)

- Reduced threshold that allows biannual instead of annual source testing by 50%
- Modified source test approval provision:
  - The operator may use alternative or equivalent source test methods as approved in writing by the Executive Officer, in addition to the Air Resources Board~~, and~~ or the U.S. EPA, as applicable
- Added provision requiring submittal of source test reports 90 days after completion of testing

Curtailment (o)

- Adjusted ambient lead and lead emission rates consistent with proposed limits
  - Initial ambient lead curtailment threshold will be reduced from 0.150 ug/ m^3 to 0.110 ug/m^3 (effective 1/1/2016)
  - Initial lead emission rate curtailment threshold will reduced from 0.045 lb/hr to 0.023 lb/hr (effective 1/1/2016)
  - All other curtailment thresholds will remain the same

Signage and Notifications (n)(2)

- Requiring notification to the Executive Officer for total enclosure breach (n)(2)(J)
  - 10 days prior if planned activity
  - One hour after if unplanned
- Requiring installation of caution signs for digging activities (n)(2)(I)
  - Specific requirements for facility contact, sign placement and letter

Caution
Lead-Acid Battery Recycling Facility
Call before digging
Facility Contact

Schedule

- Stationary Source Committee – November 21, 2014
- Set Hearing - January 9, 2015
- Public Hearing – February 6, 2015

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